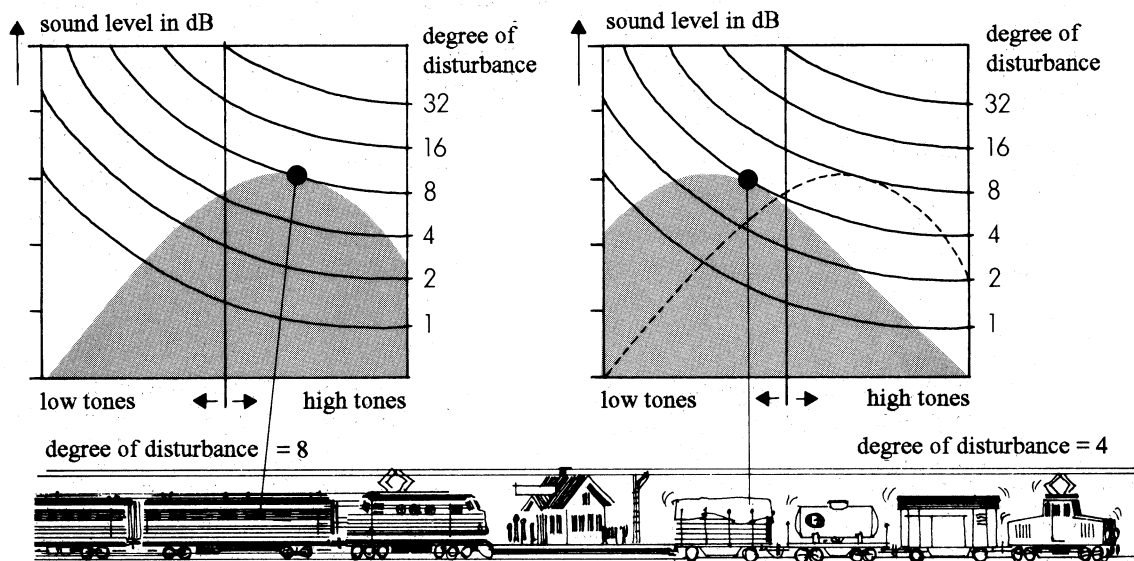


LOW FREQUENCY NOISE IS LESS DISTURBING

The human ear is less sensitive to low frequency noise than to high frequency noise. If it is not possible to reduce the noise, it may be possible to change it so that more of it is at lower frequencies.

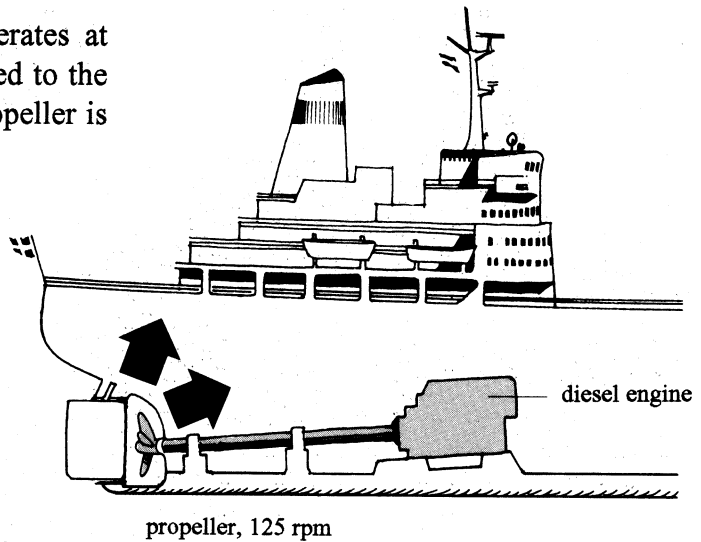
Principle



Two passing trains make equal amounts of noise, but one is more disturbing because it moves faster, causing more rapid impacts and creating higher frequency noise

EXAMPLE

The diesel engine in a ship operates at 125 rpm, and is directly connected to the propeller. The noise from the propeller is extremely disturbing on board.



CONTROL MEASURE

A differential gear is installed between the motor and the propeller so that the propeller can revolve at 75 rpm. The propeller is replaced by a larger one. The noise is shifted to a lower frequency, making it less disturbing.

